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Role of Village Health Sanitation and Nutrition Day (VHSND) in Health of Rural Communities within Himachal Pradesh

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ABSTRACT

The Village Health Sanitation and Nutrition Day (VHSND), originally known as VHND, is one of India's most significant community-based health interventions, designed to bring comprehensive primary healthcare services directly to rural populations through a multi-sectoral convergence approach. Himachal Pradesh is a hilly state, where geographical barriers and scattered populations are a big challenge to healthcare delivery; VHSND has played a vital role in improving mother and child health outcomes by tackling nutritional deficiencies and encouraging community-level health awareness. This comprehensive analysis examines the implementation, effectiveness, and transformative impact of VHSND on rural community health in Himachal Pradesh, drawing upon empirical evidence from multiple data sources, including the reports provided by the National Family Health Survey and some field-based evaluations to provide a detailed understanding of how this innovative program has contributed to the state's remarkable health achievements.

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INTRODUCTION

The VHSND program was launched under India's National Rural Health Mission (NRHM) in 2005, as a strategic response to the challenges faced in delivering comprehensive primary healthcare services to rural communities. Initially conceptualized as VHND in 2007, the program was subsequently renamed to VHSND in 2019 to incorporate the government's Swachh Bharat Mission and recognize the critical role of environmental health in overall community well-being. (Ministry of Health & Family Welfare 2018)

The Pillars of VHSND rest on the principles of primary healthcare as defined in the Alma-Ata Declaration, emphasizing community participation, intersectoral coordination, and the delivery of essential health services at the peripheral level. Based on these principles, every month a converged platform builds at Anganwadi Centers (AWCs) in every village, bringing together multiple stakeholders including ANMs, ASHAs, Anganwadi Workers, and representatives from Panchayat to deliver an all-in-one solution of health, nutrition, sanitation, and RCH services,

even now Community Health Officer (CHO) mid-level-healthcare provider also a part of that team. (*Ministry of Health & Family Welfare, 2019; Gupta et al., 2019*)

The paradigm shifts from traditional vertical health programs toward a more holistic approach that addresses the social determinants of health on a multi-sectoral nature of VHSND. This framework suggests that health outcomes are influenced by factors beyond the healthcare system, including nutrition status, sanitation practices, socioeconomic conditions, and community empowerment. By integrating services from the Department of Health and Family Welfare, Department of Women and Child Development, and other allied sectors, VHSND creates rapport that magnifies the impact of individual interventions.

OBJECTIVES

1. To evaluate/assess the effectiveness of multisectoral integration of VHSND in health.
2. To promote the community-based health initiatives at Grass grassroots/Rural level.

METHODOLOGY

1. Used multiple data collection methods, including semi-structured questionnaire, focus group discussion and direct observation of VHSND sessions.
2. Previous record review and document analysis for primarily data collection.

Implementation of VHSND in Himachal Pradesh

Implementation of VHSND in Himachal Pradesh reflects both adherence to national guidelines as well as adaptation to local contexts shaped by the state's unique geographical and demographic characteristics. The state's mountainous terrain, with 89.9% of its 6.86 million population residing in rural areas, presents significant challenges for healthcare delivery, including difficult accessibility, scattered settlements, and seasonal variations in service availability.

At the level of state government, the National Health Mission Himachal Pradesh provides strategy, resource allocation, and performance monitoring. District health administrations coordinate implementation across their jurisdictions, while block-level officials ensure operational support and supervision. At the village level, VHSNCs serve as the governing bodies for VHSND implementation, with each committee comprising 15 members representing different community segments and service providers, with 50% representation provided to women. (*Sharma et al., 2019; Pandey et al 2020*)

A notable feature of Himachal Pradesh's VHSND implementation is the reconstitution of VHSND committees (VHSNCs) that happened in 2016. Initially established in 2010 under Panchayati Raj Institutions known as VSNC to ensure better alignment with health program objectives and more effective utilization of untied funds allocated at Rs. 10,000 per committee annually. This structural reform was accompanied by the establishment of dedicated bank

accounts in the names of VHSNC operated by ASHA and AWW jointly, Block Medical Officers designated as nodal officers for each block.

The state has constituted VHSNCs across all 12 districts at each ASHA village level and near about 8400 committees, with significant variation in the number of committees reflecting population distribution. The Kangra district, being the most populous with 3,698 ASHA villages, has the highest number of VHSNCs, while smaller districts like Kinnaur and Lahaul & Spiti have fewer committees but face greater challenges in terms of accessibility and service delivery due to their remote and tribal populations.

Service Delivery Framework and Components

The VHSND service delivery framework in Himachal Pradesh encompasses four integrated components. The health component focuses on reproductive, maternal, newborn, child, and adolescent health (RMNCHA) services, including before birth care registration and medical examination, immunization services, family planning counselling, and screening for communicable and non-communicable diseases. This component also addresses specific local health challenges, including vector-borne diseases prevalent in certain ecological zones of the state.

The nutrition component addresses the high burden of malnutrition and micronutrient deficiencies documented in the state. Services include growth monitoring of children using standard anthropometric measurements, distribution of Iron Folic Acid tablets to pregnant women and adolescents (WIFS), promotion of optimal feeding practices of infant and young child, including breastfeeding and appropriate supplementary feeding, and nutritional counselling for families. The integration with the Integrated Child Development Services (ICDS) program through Anganwadi Centers ensures coordination between nutrition interventions and early childhood development activities, including supplementary food (*Ministry of Health & Family Welfare 2019; Kumar et al, 2015*)

Sanitation services within VHSND address environmental health determinants that significantly impact community health outcomes. Awareness on promotion of proper hand washing practices, advocacy for construction and use of individual household toilets, ensuring access to safe drinking water sources, and community-level waste management initiatives. These services are particularly relevant in Himachal Pradesh, where open defecation rates and waterborne diseases are still major public health challenges in certain areas. (*Ministry of Health & Family Welfare 2019; Kumar et al, 2015*)

The early childhood development component recognizes the critical importance of the initial 1,000 days of birth in determining long-term health and developmental outcomes. Services include playing and learning activities that are right for the child's age, helping children learn to talk and communicate, and preparing them for school readiness. This

component is delivered primarily through AWC in coordination with trained Anganwadi Workers and helpers.

Health Outcomes and Impact Assessment

The implementation of VHSND in Himachal Pradesh has coincided with remarkable improvements in key health indicators, as demonstrated by records from successive rounds of Survey done by NFHS. The state's health performance has consistently exceeded national averages across multiple indicators, with particularly impressive gains in maternal and child health outcomes that align closely with VHSND's primary focus areas [10][6].

Maternal health indicators demonstrate the most dramatic improvements, with the maternal mortality rate declining from 254 per 100,000 live births in NFHS-4 to 55 per 100,000 in NFHS-5, representing a 78% reduction and significantly surpassing the national average of 103 per 100,000. This improvement correlates strongly with increased institutional delivery rates, which rose from 76.4% to 88.2%, and improved antenatal care coverage, with 70.3% of women receiving four or more ANC visits compared to the national average of 58.1%.

Child health outcomes show equally impressive improvements, with the mortality rate of infants declining from 34.4 to 25.6 per 1,000 live births, while the mortality rate below five age decreased from 37.6 to 28.9 per 1,000 live births. Full immunization coverage among children aged 12-23 months reached 96.4%, substantially higher than the national average of 83.8% and representing a significant increase from the 85.4% coverage recorded in NFHS-4. (*International Institute for Population Sciences, 2021; Ministry of Health & Family Welfare, 2021*)

Nutrition indicators present a more complex picture, with some improvements offset by persistent challenges. While overall nutritional status has stabilized, with stunting rates remaining relatively constant at 26.7% (compared to the national average of 35.5%), childhood anaemia has shown a slight increase from 53.7% to 55.4%, though this remains substantially lower than the national average of 67.1%. These mixed results highlight the multifactorial nature of nutritional challenges and the need for sustained, comprehensive interventions.

The state's success in improving health outcomes can be attributed to multiple factors, including strengthened health infrastructure under the National Health Mission, improved access to services through programs like Janani Shishu Suraksha Karyakram (JSSK), and enhanced community engagement through platforms like VHSND. The integration of services and the monthly regularity of VHSND sessions have been particularly important in ensuring continuity of care and building community trust in the health system. (Singh et al.,2020; *Ministry of Health & Family Welfare, 2021*)

District-Level Variations and Challenges

Analysis of VHSND implementation across Himachal Pradesh's 12 districts reveals significant variations in coverage, performance, and health outcomes, reflecting the diverse geographical, demographic, and socioeconomic contexts within the state. These variations provide important insights into the factors that influence program effectiveness and highlight the need for adaptive approaches to address local challenge.

Districts with predominantly non-tribal, mixed populations generally demonstrate higher VHSND coverage and better health outcomes. Bilaspur, Shimla, and Solan districts consistently achieve high performance across multiple indicators, with VHSND coverage exceeding targets and ANC coverage rates above 85%. These districts benefit from better transportation infrastructure, higher literacy rates, and more robust health system capacity, enabling more effective implementation of VHSND activities.

In contrast, tribal districts, including Chamba, Kinnaur, and Lahaul &Spiti, face significant implementation challenges that result in lower coverage rates and poorer health outcomes. These districts are characterized by difficult terrain, scattered populations, extreme weather conditions that limit accessibility during certain seasons, and cultural practices that may influence health-seeking behaviors. VHSND coverage in these districts ranges from 27% to 70%, substantially lower than the state average, while ANC coverage rates vary from 44.4% to 82.3%.

The challenges faced by tribal districts are compounded by human resource constraints, with many positions for ANMs, doctors, and other health personnel remaining vacant or filled temporarily. The rotation of personnel and frequent transfers further disrupt continuity of services and community relationships that are essential for effective VHSND implementation. Additionally, the seasonal migration patterns common in tribal areas create challenges for maintaining consistent beneficiary lists and ensuring continuity of care.

Despite these challenges, some tribal districts have demonstrated resilience and innovation in VHSND implementation. Community mobilization efforts led by local leaders, adaptation of service delivery schedules to accommodate seasonal variations, and the use of mobile health units to reach remote areas have helped improve access and coverage in these challenging environments.

Community Engagement and Governance Mechanisms

The effectiveness of VHSND in Himachal Pradesh is fundamentally dependent on robust community engagement and governance mechanisms that facilitate meaningful involvement by the community members in health-action plan and execution. The VHSNCs serve as the main administration platform, bringing together elected representatives, health workers, and community members to oversee VHSND activities and address local health priorities. (Sharma et al.,2019; Pandey et al 2020)

Research conducted in Kangra district revealed important insights into VHSNC functionality and community awareness. The most active committee members were identified as female health workers (ANMs), Anganwadi Workers, ASHAs, representatives of Mahila Mandal, and female ward members, suggesting that women's participation is crucial for effective committee functioning.

The utilization of untied funds allocated to VHSNCs provides important insights into community priorities and decision-making processes. Analysis of expenditure patterns shows that 65% of funds are utilized for cleanliness activities, including cleaning of water sources, village common areas, and bush clearing. This prioritization reflects community recognition of the importance of environmental health, though it also indicates limited clarity about the broader nutrition and health mandates of the committees.

Community engagement in VHSND activities demonstrates varying levels of participation across different demographic groups. Research shows that sessions held by VHSND have shown maximum participation of committee members (84%) and community members (74%), with higher participation rates among women and mothers of young children. However, participation of marginalized groups, including scheduled castes and tribes, faces barriers related to social hierarchies, time constraints due to livelihood activities, and limited awareness about available services.

The effectiveness of community engagement is also influenced by the quality of relationships between community members and health workers. Trust-building through consistent service delivery, respectful communication, and responsiveness to community concerns are essential factors that determine long-term sustainability of community participation. The monthly regularity of VHSND sessions provides opportunities for building these relationships and establishing VHSND as a reliable source of health information and services.

Integration with Broader Health System Strengthening

VHSND implementation in Himachal Pradesh occurs within the narrow sense of health system strengthening initiatives under the NHM, creating synergies that boost the impact of individual interventions. The integration of VHSND with other flagship programs including Janani Shishu Suraksha Karyakram (JSSK), Pradhan Mantri Surakshit Matritva Abhiyaan (PMSMA), and POSHAN Abhiyaan has created a comprehensive ecosystem of maternal and child health services that addresses multiple determinants of health outcomes. (Singh et al.,2020; *Ministry of Health & Family Welfare, 2021*)

Under Ayushman-Bharat creation of Health and Wellness Centres (HWCs) has build additional opportunities for strengthening VHSND implementation. HWCs provide a fixed platform for delivering comprehensive primary healthcare services, while VHSND extends this reach into communities through regular outreach sessions. The complementary nature of these interventions ensures that

communities have access to both facility-based and community-based services, with referral mechanisms facilitating continuity of care.

Advancement in infrastructure under National Health Mission programme has significantly improved the effectiveness of VHSND implementation in Himachal Pradesh. The state now has 2,092 HSC's (now HWC's), 564 PHC's (now HW-PHC), and 85 CHC's, providing coverage that exceeds national norms. The establishment of Sick Newborn Care Units (SNCUs), Newborn Stabilization Units (NBSUs), and Newborn Care Corners (NBCCs) has created a robust network of specialized services that support VHSND's focus on maternal and child health.

Human resource strengthening has been another critical component of health system strengthening that supports VHSND implementation. The state has recruited 98.2% of the required ASHA workers under NRHM and 97.06% under NUHM, ensuring adequate coverage of community health workers who serve as the backbone of VHSND implementation. Training programs for ANMs, ASHAs, and Anganwadi Workers have enhanced their capacity to deliver integrated services and engage effectively with communities. The integration of VHSND with health information systems has improved monitoring and evaluation capabilities, enabling data-driven decision-making and performance improvement. The Health Management Information System (HMIS) captures data on VHSND sessions, beneficiary coverage, and service utilization, providing feedback loops that inform program management and resource allocation decisions.

Impact of COVID-19 and Adaptation Strategies

The COVID-19 pandemic presented unprecedented challenges for VHSND implementation in Himachal Pradesh, disrupting routine service delivery and requiring rapid adaptation of program strategies to maintain essential health services while minimizing disease transmission risks. The pandemic's impact was particularly significant in rural areas, where VHSND serves as a primary platform for accessing maternal and child health services.

Initial responses to the pandemic included temporary suspension of VHSND sessions in March 2020 as part of nationwide lockdown measures. However, recognizing the critical importance of maintaining essential health services, particularly for pregnant women and children, the program was quickly adapted with modified protocols that emphasized safety measures while ensuring continuity of care. These adaptations included reducing session duration, implementing physical distancing measures, mandatory use of masks and hand sanitization, and limiting the number of participants per session. (Singh et al.,2020; *Ministry of Health & Family Welfare, 2021*)

The role of ASHA became even more critical during the pandemic, as they were tasked with additional responsibilities including COVID-19 contact tracing, community surveillance, and health education about preventive measures.

This increased workload placed significant stress on ASHA workers, many of whom lacked adequate personal protective equipment and faced stigma from community members who associated them with COVID-19 transmission. Despite these challenges, ASHA workers demonstrated remarkable resilience and commitment, continuing to provide essential services and serving as the critical link between communities and the formal health system.

Digital innovations emerged as important adaptation strategies during the pandemic, with several states piloting mobile applications and digital platforms for VHSND monitoring and service delivery. These innovations included digital tracking of beneficiaries, virtual training sessions for health workers, and tele-consultation services for routine follow-up care. While digital divide issues limited the full potential of these innovations in remote areas of Himachal Pradesh, they demonstrated the feasibility of technology-enabled service delivery models.

The pandemic also highlighted the importance of VHSND's multi-sectoral approach, as communities faced interconnected challenges related to health, nutrition, and livelihoods. The integration of nutrition support through ICDS programs, information about government relief schemes, and psychosocial support services helped address the broader impacts of the pandemic on rural communities.

Recovery and restoration of VHSND services in the post-acute phase of the pandemic demonstrated the resilience of the program and the importance of community-based platforms for health service delivery. Many districts reported that VHSND sessions served as important vehicles for COVID-19 vaccination drives, leveraging existing community trust and infrastructure to achieve high vaccination coverage rates.

Technological Innovations and Digitization Efforts

The digitization of VHSND monitoring and evaluation systems represents an important frontier for improving program effectiveness and accountability in Himachal Pradesh. Several technological innovations have been piloted to address longstanding challenges related to data collection, reporting, and real-time monitoring of program performance. One notable innovation implemented in Bokaro, Jharkhand, with potential applications for Himachal Pradesh, involved the development of a digital platform for VHSND monitoring that addresses the dual challenges of ANM workload and the need for real-time performance tracking. The platform enables digital data entry at the point of service delivery, automated report generation, and dashboard-based monitoring for district officials, reducing paperwork burden while improving data quality and timeliness.

Mobile applications have been developed to support various aspects of VHSND implementation, including beneficiary tracking, service delivery documentation, and performance monitoring. These applications enable ANMs and other health workers to maintain digital records of services provided, track due dates for follow-up services, and generate

automated reminders for missed appointments. The Tattva Foundation's VHND Application exemplifies such innovations, providing modules for different user categories and streamlining monitoring processes. (*India Health Action Trust, 2025; Bhaduri et al., 2022*)

Digital innovation has also extended to community engagement and awareness generation, with social media platforms and mobile messaging services being used to disseminate health information, announce VHSND schedules, and gather community feedback. These tools have proven particularly valuable in reaching younger populations and overcoming barriers related to literacy and language diversity. (*Bhaduri et al., 2022; Chakravorty et al., 2022*)

The integration of VHSND data with broader health information systems has enabled more sophisticated analysis of program performance and health outcomes. Data analytics capabilities allow program managers to identify trends, predict service needs, and optimize resource allocation across different districts and population groups. This data-driven approach to program management represents a significant advancement from traditional paper-based monitoring systems.

However, the implementation of digital innovations in VHSND faces several challenges in the Himachal Pradesh context.

1. Including poor connectivity to the internet in remote areas.
2. Health workers and community members lacking digital skills.
3. Unmatched data of different stakeholders of VHSND.
4. Need for ongoing technical support and maintenance.

Addressing these challenges requires sustained investment in digital infrastructure, capacity building, and user-friendly system design.

Best Practices and Success Factors

Analysis of VHSND implementation across different contexts has identified several best practices and success factors that contribute to program effectiveness and sustainability. These insights are particularly relevant for scaling up successful interventions and addressing implementation challenges in different geographical and demographic contexts.

Effective convergence between different departments and sectors emerges as a critical success factor for VHSND implementation. States and districts that have established regular convergence meetings between health, ICDS, and Panchayati Raj departments demonstrate better coordination, resource sharing, and problem-solving capabilities. In Himachal Pradesh, the reconstitution of VHSNCs under health sector authority has improved coordination, though continued efforts are needed to strengthen inter-departmental collaboration.

Community ownership and leadership represent another crucial success factor, with programs demonstrating greater sustainability when community members take active roles in

planning, implementation, and monitoring. The involvement of local leaders, self-help group members, and other influential community figures enhances social legitimacy and community buy-in for VHSND activities.

Capacity building and supportive supervision of frontline workers are essential for maintaining service quality and worker motivation. Programs that provide regular training updates, mentoring support, and recognition for good performance demonstrate better retention of health workers and higher quality service delivery. The establishment of peer learning networks and communities of practice can further enhance capacity-building efforts. (Verma et al., 2022; Singh et al., 2020)

Data utilization for program improvement represents an important best practice that enables continuous quality improvement and evidence-based decision making. Districts that have established systems for regular data review, gap analysis, and corrective action planning demonstrate better program performance and responsiveness to changing community needs. (Verma et al., 2022; Ministry of Health and Family Welfare, 2021)

Flexibility and adaptation to local contexts emerge as important factors for program success, with effective programs demonstrating ability to modify implementation strategies based on local geographical, cultural, and socioeconomic factors. This includes adapting service delivery schedules to accommodate seasonal migration patterns, cultural preferences, and local festivals.

Challenges and Implementation Barriers

Despite significant achievements, VHSND implementation in Himachal Pradesh faces several persistent challenges that limit program effectiveness and require sustained attention from policymakers and program managers. Understanding these challenges is essential for developing targeted interventions and improving program outcomes.

Human resource constraints represent one of the most significant implementation barriers, particularly in remote and tribal areas. Vacant positions for ANMs, doctors, and other mid-level health personnel disrupt service continuity and place additional workload burdens on available staff. High turnover rates and frequent transfers of health personnel further compound these challenges by disrupting community relationships and institutional memory. (Kumar et al., 2015; Pandey et al., 2020)

Geographical and accessibility challenges continue to pose significant barriers to VHSND implementation in mountainous and remote areas of Himachal Pradesh. Difficult terrain, seasonal weather variations, and poor transportation infrastructure limit the ability of health workers to reach remote communities and restrict community members' access to services. These challenges are particularly acute in tribal districts where populations are scattered across difficult terrain. (Sharma et al., 2019; Pandey et al 2020)

Resource constraints, including inadequate supplies of medicines, vaccines, and equipment, affect service quality and community trust in VHSND services. Irregular supply chains and inventory management challenges result in stock-outs that disappoint community members and undermine confidence in the program. The limited availability of diagnostic equipment and lab services at ground level also limits the range of services that can be provided through VHSND.

Community engagement barriers include low awareness about available services, particularly among marginalized populations, and a hierarchical system that restrict the involvement of women and disadvantaged groups. Cultural factors, including traditional healing practices and skepticism about modern medicine, can also influence community acceptance of VHSND services.

Coordination challenges between different departments and levels of government can result in duplicated efforts, gaps in service delivery, and inefficient resource utilization. The involvement of multiple stakeholders, while beneficial for comprehensive service delivery, also creates complexities in planning, implementation, and accountability that require sustained coordination efforts.

Sustainability and Future Directions

The long-term sustainability of VHSND in Himachal Pradesh depends on addressing structural challenges while building on existing strengths and innovations. Several key areas require sustained attention to ensure continued program effectiveness and expansion of impact. (Verma et al., 2022; Singh et al., 2020)

Financial sustainability requires diversification of funding sources beyond central government allocations, including state government investments, development partner support, and community contributions. The integration of VHSND activities with ongoing health programs and services can improve cost-effectiveness and ensure continued funding even during periods of resource constraints.

Institutional sustainability depends on strengthening governance mechanisms at multiple levels, including VHSNCs at the village level, district health administrations, and state-level coordination bodies. Building the capacity of these institutions to plan, implement, monitor, and adapt programs based on local needs and changing contexts is essential for long-term sustainability.

Human resource sustainability requires addressing recruitment and retention challenges through improved working conditions, career advancement opportunities, and adequate compensation for health workers. Investment in training and capacity-building programs that enhance professional skills and job satisfaction can improve retention rates and service quality.

Community sustainability depends on continued engagement and ownership by community members, including their participation in planning, monitoring, and evaluation activities. Building local capacity for problem-solving and

innovation can enhance program resilience and responsiveness to changing community needs.

Technological sustainability requires continued investment in digital infrastructure, capacity building for digital tools, and user-friendly system design that meets the needs of health workers and community members. The integration of digital tools with existing workflows and systems can improve efficiency and effectiveness while ensuring continued adoption.

Future directions for VHSND in Himachal Pradesh should focus on expanding the scope of services to address upcoming health issues, including chronic diseases, psychological fitness, and aging-related health issues. The integration of VHSND with other health initiatives, including health insurance schemes and telemedicine services, can create more comprehensive and accessible health systems. (*International Institute for Population Sciences, 2021; Ministry of Health & Family Welfare, 2021*)

Policy Implications and Recommendations

The experience of VHSND implementation in Himachal Pradesh provides important insights for health policy development and program improvement at both state and national levels. Several key policy implications emerge from this analysis that can inform future program design and implementation strategies.

Strengthening Multi-sectoral Coordination

The success of VHSND depends critically on effective coordination between health, nutrition, sanitation, and early childhood development sectors. Policy frameworks should mandate regular convergence meetings, joint planning processes, and shared accountability mechanisms across different departments. The establishment of formal coordination bodies at block, district and state levels can facilitate sustained collaboration and resource sharing.

Addressing Geographic and Demographic Disparities

The significant variations in VHSND coverage and health outcomes across different districts and population groups highlight the need for targeted interventions that address specific challenges faced by tribal and remote populations. Policy frameworks should incorporate provisions for differential resource allocation, specialized training programs, and adapted service delivery models that account for geographical and cultural contexts.

Investing in Human Resource Development

The critical role of frontline health workers in VHSND implementation requires sustained investment in recruitment, training, and retention strategies. Policy frameworks should address career progression opportunities, adequate compensation, and supportive supervision mechanisms that enhance job satisfaction and reduce turnover rates. The establishment of specialized training institutes and

continuous professional development programs can improve service quality and worker motivation.

Leveraging Technology for Program Improvement

To effectively use digital technologies for improving VHSND monitoring, service delivery, and community engagement, we require supportive policy frameworks that promote innovation while ensuring equity and accessibility. Investment in digital infrastructure, capacity building, and user-friendly system design should be prioritized, with particular attention to addressing digital divide issues in remote areas.

Strengthening Community Governance

The effectiveness of VHSNCs as governance mechanisms requires continued policy support for community participation, transparent decision-making processes, and accountability mechanisms. Policy frameworks should mandate regular training for committee members, clear guidelines for fund utilization, and mechanisms for community feedback and grievance redressal.

CONCLUSION

The VHSND program represents a transformative approach toward rural health service delivery that has contributed significantly to Himachal Pradesh's impressive health achievements over the past decade. Through its multi-sectoral convergence platform, monthly service delivery schedule, and community governance mechanisms, VHSND has addressed critical gaps in primary healthcare access while promoting community engagement and ownership of health outcomes.

The evidence presented in this analysis demonstrates that VHSND implementation in Himachal Pradesh has coincided with remarkable improvements in maternal and child health indicators, with the state consistently outperforming national averages across multiple key measures. The program's comprehensive approach, addressing health, nutrition, sanitation, and early childhood development simultaneously, has created synergies that amplify the impact of individual interventions and resolve the social factors of health in rural communities.

However, significant challenges remain, particularly in reaching marginalized and geographically isolated populations. The variations in program coverage and health outcomes across different districts highlight the need for targeted interventions that address specific barriers faced by tribal and remote communities. Addressing human resource constraints, improving coordination mechanisms, and leveraging technological innovations will be critical for sustaining and expanding the program's impact.

The COVID-19 pandemic has demonstrated both the vulnerability and resilience of community-based health programs, with VHSND serving as a critical platform for maintaining essential health services while adapting to new challenges. The lessons learned from pandemic response

efforts provide valuable insights for building more resilient and responsive health systems that can adapt to future health emergencies while maintaining focus on routine health needs. Looking forward, the sustainability and continued effectiveness of VHSND in Himachal Pradesh will depend on sustained political commitment, adequate resource allocation, and continued innovation in service delivery approaches. The integration of VHSND with emerging health initiatives, including Health and Wellness Centers under Ayushman Bharat and digital health platforms, presents opportunities for creating more accessible health systems that addresses the various needs of rural populations.

The success of VHSND in Himachal Pradesh provides important lessons for other states and countries seeking to improve rural health outcomes through community-based interventions. The key factors contributing to success - including strong political support, adequate funding, effective coordination mechanisms, community engagement, and adaptive implementation strategies - can inform program design and implementation in different contexts while recognizing the need for local adaptation based on specific geographical, demographic, and cultural factors. Ultimately, VHSND represents more than a health service delivery program; it embodies a vision of community-centred health systems that empower rural populations to take ownership of their health and wellbeing. The continued evolution and strengthening of this program will be essential for achieving India's health goals and ensuring that no one is left behind in the pursuit of health equity and universal health coverage.

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